Sheet I of 2

	Ž									
Form PTO-1449 US Dept. of Commerce (REV. 8-83) PATENT & TRADEMARK OFFICE 115917 APPLICATION NO. 10736,602									IO.	
INFORMATION DISCLOSURE STATEMENT										
	(Use so	everal sheets if	necessary)		APPLICA Michael	ANTS A. KNEISSL et al.				
FILING DATE December 17, 2003 U.S. PATENT DOCUMENTS										
			U.S.	PAT	ENT DOCU	MENTS				
EXAMINER DOCUMENT NUMBER DATE NAME CLASS CLASS										
m6		10/428,068	2004/021865	405/	02/03	Michael A. KNEISSL	et al.			
FOREIGN PATENT DOCUMENTS										
DOCUMENT NUMBER DATE COUNTRY CLASS SUB CLASS										
								_		
		ОТІ	HER DOCUMENTS (Inc	cludir	ng Author,	Title, Date, Pertinent Pag	es, etc.)		` .	
m 6			al., "Threshold Lowering Lett Vol. 13, No. 1, Jan			llar Lasers By Means of 3 -3	Spatially Sel	ective (Optical Pum	ping," <u>IEEE</u>
		Rex, N. et al., "Fresnel Filtering in Lasing Emission from Scarred Modes of Wave-Chaotic Optical Resonators," Phys. Rev. Lett., Vol. 88, art. no. 094102-1 -094102-4 (2002)								
	Poon, A. W. et al., "Multimode Resonances in Square-Shaped Optical Microcavities," Opt. Lett, Vol. 26, No. 9, May 1, 2001, pp. 632-634.									
			et al., "Deviation from Sn Lasers," <u>Opt. Lett.,</u> Vol. 2			ams Transmitted Near the 2002, pp. 7-9	Critical An	gle: Ap	plication to	
		Nockel, J.U.	et al., "Ray and Wave Ch	naos in	n Asymmet	ric Resonant Optical Cav	ities," Nature	e, Vol.	385, No. 45	(1997).
	Nockel, J.U. et al., "Ray and Wave Chaos in Asymmetric Resonant Optical Cavities," Nature, Vol. 385, No. 45 (1997). Gmachl, C. et al., "High-Power Directional Emission From Microlasers With Chaotic Resonators," Science Vol. 280, 5 June 1998, pp. 1556-1564								1. 280, 5	
Nockel, J.U. et al., "Directional Emission from Asymmetric Resonant Cavities," Opt. Lett., Vol. 21, No. 19, October 1, 1996, pp. 1609-1611										
Chang, S. et al., "Observation of Emission from Chaotic Lasing Modes in Deformed Microspheres: Displacement by the Stable-Orbit Modes," J. Opt. Soc. Am. B-Opt. Phys., 17 (2002)										
Schwefel, H.G.L. et al., "Dramatic Shape Sensitivity of Emission Patterns for Similarly Deformed Cylindrical Polymer Lasers," CLEO/OELS May 2002, pp. 24-25.										
Tureci, H.E. et al., "Lasing Emission From Stable and Unstable Modes of Deformed GaN Microdisks," CLEO/QELS, May 2002, pp. 23-24.										
			et al., "Directional Laser oillar Cavities," <u>CLEO/Q</u>			quare, Spiral and Mismat	ched Semi-C	Circular	Dye-Doped	Polymer
			al., "Directional Laser Er May 2000, pp. 178-179		on From Ch	aotic Modes in Quadrupo	le-Deformed	GaN I	Microdisks,"	,
•	1				· · · · · · · · · · · · · · · · · · ·			-		
EXAMINER	EXAMINER DATE CONSIDERED 2/21/2006									
Examiner: I	nitial if	citation consid	lered, whether or not ci	itatio	n is in con	formance with M.P.E.P.	609; draw	line th	rough citati	on if not in
<u>c</u>	conformance and not considered. Include copy of this form with next communication to applicant.									

Date: May 21, 2004

Sheet 2 of 2	Sheet	2	of	2	
--------------	-------	---	----	---	--

Form PTO-1449 (REV. 8-83))	US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DO	OCKET NO.	- 1	ICATION N 6,602	10.
INFO	RMATIC	ON DISCLOSURE STATEMENT						
	(Use s	everal sheets if necessary)		APPLICA Michael	ANT(S) A. KNEISSL et al.			
				FILING I Decembe	DATE r 17, 2003			
		U.S.	PATE	NT DOCU	MENTS		,	
EXAMINER INITIAL		DOCUMENT NUMBER	D	ATE	. NAME		CLASS	SUB CLASS
	1 1	FOREIG	N PAT	TENT DO	CUMENTS T		 	·
		DOCUMENT NUMBER	D	ATE	COUNTRY		CLASS	SUB CLASS
	1 1				Title, Date, Pertinent Pages, etc.)			
MG		Rex, N.B. et al., "Threshold Minimizat pp. 163-169	tion and	d Directio	nal Laser Emission From GaN Mic	rodisks,"	SPIE Janua	ary 2000,
		Rex, N.B. et al., "Lasing in GaN Micro 9/28/1999	opillar	Cavities o	of N-Polygons: Polygonal Modes at	d Increas	ed Direction	nality," <u>OSA</u>
		Chang, S. et al., "Laser Emission From	n Defor	med Micr	ocavities: Chaotic and Regular Or	oits," <u>OS/</u>	10/7/1998	
		Chang, R. K. et al., "Stimulated Emiss	ion Wi	thin a No	nspherical Microcavity," <u>OSA</u> 10/1	6/1998	·	
		Levi, A.F.J. et al., "Directional Light C	Couplin	g from M	icrodisk Lasers," <u>Appl. Phys. Lett.</u>	62 (6) (1	993), pp. 56	1-563
		Sakai, A. et al., "FDTD Simulation of Lightwave Tech. 17 (8) (August 1999)				nd Fan-Sh	aped Micro	disks," <u>J.</u>
		McCall, S.L. et al., "Whispering-Galle	ery Mo	de Micro	disk Lasers," Appl. Phys. Lett. 60,	р. 289-2	91, (January	1992).
		Levi, A.F.J. et al., "Room-Temperature Phys. Lett., 62 (17), April 1993, pp. 20			in In _{0.51} Ga _{.0.49} P/In _{0.2} Ga _{0.8} As Microd	ylinder L	aser Diodes	," <u>Appl.</u>
							_	
						•		
								,
EXAMINER	W	Coll			DATE	CONSIDE /2//		
		citation considered, whether or not ci				w line th	rough citati	on if not in

Date: May 21, 2004

Sheet

ATTY DOCKET NO.

APPL

Form PTO-1449 (REV. 8-83)		US Dept. of Commerce PATENT & TRADEMARK OFFICE ON DISCLOSURE STATEMENT	ATTY DOO 115917	CKET NO.	10/73	ICATION NC 6,602).
INFOR		everal sheets if necessary)	APPLICAN Michael A	NT(S) . KNEISSL et al.			
			FILING DA	ATE			
		II C D	ATENT DOCUM				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME		CLASS	SUB CLASS
						· 1	
						11	
	<u> </u>					 	
	1						
	1	FOREIG	N PATENT DO	CUMENTS			SUB
		DOCUMENT NUMBER	DATE	COUNTRY		CLASS	CLASS
M.6	1	EP 0 533 390 A1	03-24-1993	Europe			
1	2	JP 59-172286 A w/abstract	09-28-1984	Japan			
	3	JP 06-152047 A w/abstract & translation	05-31-1994	Japan			
	4	JP 06-252504 A w/abstract & translation	09-09-1994	Japan			
							<u> </u>
		OTHER DOCUMENTS (In	cluding Author,	Title, Date, Pertinent Pages, e	tc.)		Ned Phains
		Chern, G. D. et al., "Unidirectional last Leter, American Institute of Phics, Vo)1. 83, No. 9, Sep	Member 1, 2005, pp. 1110			
M6		Choi, S. J. et al., "Fabrication of Verti Etching Methods," Annual Meeting o pp. 628-629	ically Coupled I f the IEEE Lase	nP Microdisk Resonators by L rs & Electro-Optics Society, V	Ising Smooth	n, CH ₄ -based ovember 14, 2	Reactive Ion 001,
	+						
EVAMBLED		AN Goldo			DATE CON	SIDERED	——— 6
EXAMINER		IN. Gamo					
Examiner:	Initia	l if citation considered, whether or not ormance and not considered. Include copy	citation is in c y of this form w	ith next communication to app	licant.		

Date: April 8, 2005